

Abstract

Validation of large numbers of alternative execution plans for a database query, either an exhaustive enumeration of the complete space of alternatives, or else an unbiased random sample, is performed by efficiently constructing execution trees from a 5 data structure having groups alternative operators that are ranked in a directory. Each global rank of a plan identifies that plan uniquely among all the alternative plans. The operators are unranked from the directory according to a specification that characterizes the desired plans.

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